

IN THE CLAIMS:

The following is a listing of the claims of record with claims 10, 11, 12, 13 and 14 shown as amended.

LISTING OF CLAIMS

Claims 1-9 (Cancelled)

Claim 10. (Currently Amended) An optical disk drive that can write data in an optical disk at having a plurality of rotative modes, comprising:

a memory storage unit configured to store information indicating how a tracking offset value is to be varied corresponding to each of the plurality of rotative modes; and

~~a control unit configured to:~~

~~read the test data written in the first plurality of frames thereby to obtain characteristic values of the first plurality of frames, and~~

~~determine the optimum tracking offset value of the optical disk drive based on the obtained characteristic values.~~

~~read the information indicating how the a test recording unit configured to read particular information from said memory unit indicating how a tracking offset value is to be varied from said storage unit; for a given rotative mode in said plurality of rotative modes wherein the test recording unit writes test data in a first plurality of frames of the optical disk using the tracking offset value being varied based on the information, in accordance with the particular information being read for said given rotative mode, and~~

~~an optimum tracking offset determination unit configured to determine the optimum tracking offset value based on characteristic values of~~

signals reproduced from respective frames of the first plurality of frames.

Claim 11. (Currently Amended) The optical disk drive as claimed in claim 10, wherein said ~~control~~ test recording unit is ~~further configured to:~~ repeats the writing of test data in ~~a second plurality of frames of the optical disk using for a~~ plurality of times with the tracking offset value being varied ~~based on the~~ in accordance with the particular information read from the memory unit in the same manner; and

said optimum tracking offset determination unit obtains ~~obtain~~ average characteristic values of respective frames in which the test data is written using the same tracking offset value; ~~and,~~ and determines the optimum tracking offset value of the optical disk drive based on the obtained average characteristic values.

Claim 12. (Currently Amended) The optical disk drive as claimed in claim 11, wherein said test recording unit repeats the writing of test data for a plurality of times such that the frames in which the test data is written using the same tracking offset value are located at different angular positions of the optical disk.

Claim 13. (Currently Amended) In an optical disk drive that can write data in an optical disk at a plurality of rotative modes, a method of determining an optimum tracking offset value of the optical disk, the method comprising the steps of :

reading the information from a memory unit indicating how ~~the a~~ tracking offset value is to be varied for any given rotative mode of a ~~corresponding to each of a~~ plurality of rotative modes in the optical disk;

writing test data in a first plurality of frames of the optical disk using the tracking offset value being varied ~~based on the~~ in accordance with the

information read from the memory unit,

reading the written test data ~~written in the first plurality of frames~~
~~thereby to obtain characteristic values of signals, reproduced from respective~~
frames of the first plurality of frames, and

determining the optimum tracking offset value of the optical disk
drive based on the obtained characteristic values.

Claim 14. (Currently Amended) The method as claimed in claim
13, ~~further comprising the steps of:~~

~~writing test data in a second plurality of frames of the optical disk~~
~~using the tracking offset value being varied based on the information in the same~~
~~manner;~~

~~reading the test data written in the second plurality of frames thereby~~
~~to obtain characteristic values of the second plurality of frames; and~~

~~obtaining average values of frames in which the test data is written~~
~~using the same tracking offset value;~~

~~wherein:~~

~~the optimum tracking offset value of the optical disk drive is~~
~~determined based on the obtained average values.~~

wherein

the step of writing test data is repeated for a plurality of times with
the tracking offset value being varied in accordance with the reading information;
and

in the step of reading the test data, average characteristic values of

respective frames are obtained in which the test data is written based on using the same obtained tracking offset value; and

in the step of determining the optimum tracking offset value, the optimum tracking offset value of the optical disk drive is obtained based on the obtained average characteristic values.

Claim 15. (Previously Presented) The method as claimed in claim 14, wherein the frames in which the test data is written using the same tracking offset value are located at different angular positions of the optical disk.